1:Vaillant A-5 (1928-1936)1941 NU7 Aztec NU7

471 the leaders of each, in turn, apportioned its share among the
421 heads of families justly and equitably. Sections were also reserved for the maintenance of the chief and the temple staff, for war supplies and the payment of tribute; these were worked communally, with some amount, no doubt, of slave
[428] labor. At the death of a tenant the land passed to his sons. If he died without issue the holding reverted to the clan for redivision, as was also the case if a tenant failed to cultivate his plot for a period of two years. Such a system could work equitably and profitably for all concerned so long as a society was relatively static and plenty of arable land was at hand. However, in the Valley of Mexico inequalities developed in the system.

174 The growing population of the Valley tribes used up all the available land, and families or clans had no way of adding to their farm holdings. A plot which produced ample supplies for a small family might yield a bare subsistence or less for a larger one. Normal variation in the richness of soil would result in similar injustices. Under such conditions the chiefs and priests who lived off the public lands would be far better off than the ordinary citizen whose holding, generation by generation, tended to diminish. Thus friction leading to foreign war and internal revolt was bound to result whenever a tribe could not expand its territorial limits to meet the needs of its population. The considerable mi-
[167] grations, like those of the Culhuas to Texcoco and Tenochtitlan or the Mixtec people to Texcoco years earlier, had their basis in a pressing economic necessity.[8]

241 The Tenochcas, who came late to the Valley, at a time
311 when land was at a premium, had, we have seen, a difficult time in withstanding their hungry neighbors. Forced to re-

1:Vaillant A-5 (1928-1936)1941 NU7 Aztec NU7

treat to islands in the lake, they met the land problem in the same ingenious way as did the Chalcas, Xochimilcas and the tribes to the northwest, in Lake Zumpango.

This method was to create *chinampas*, the so-called "floating gardens." The *chinampa* was, in reality, a small artificial island, made by scooping up mud from the marshy borders of the lakes and at first holding it in place by a revetment of reeds and later by trees whose roots bound the earth solidly together. Water flowed into the narrow pits, making them into canals. Fresh mud was always added before planting, so that the fertility of the earth was constantly renewed. The Tenochcas and their neighbors thus converted great sections of otherwise unproductive marsh, flooded in the rainy season, into a grid of canals and fields, the fertility of which is equaled only by the river-flooded lands of the Nile Delta. *Chinampa* agriculture continues today in the districts of Xochimilco and Chalco, where most of the vegetables are grown for the modern metropolis of Mexico City. The inhabitants still use the Aztec language and occupy the same land as did their ancestors, renewing them each year by the same methods used in Aztec times. The outlines of former beds may be seen for a considerable distance round about, since the modern draining of Lake Texcoco has dried up much of the lake area of the Valley of Mexico.[4] (See Plate 37, bottom.)

When the Tenochcas moved into the lake they achieved living room. As the city grew it could incorporate the adjacent garden beds for house foundations, while the increase in population could be fed by building new *chinampas* on the outskirts of the farming area. Thus much of their success may be attributed to the freedom from internal strife

1:Vaillant A-5 (1928-1936)1941 NU7 Aztec NU7

311 578 achieved by the relatively unlimited possibilities of *chinampa* agriculture.

729 728 471 The Tenochcas supplemented their land hunger by another means. In conquered territories successful warriors received grants of land which were worked by members of the defeated tribe. Small colonies sometimes lived off this [428] land to guard against revolt in the subjugated area. Such property passed from father to son, but if there were no heir it reverted to the tribal authority, not the clan in which the tenant had membership. Other such land must have been held for the benefit of the religious organization. Thus the central authority of Tenochtitlan, and presumably Texcoco as well, held considerable property to support the elaborate pomp of Church and State without straining the resources of the tribesmen. The relative fluidity of such real estate gave the tribal authority a wherewithal to adjust inequalities and dissatisfactions among the more ambitious tribal members. Naturally, as the Aztec peoples were less highly developed socially than ourselves, they did not attain our own elaborate system of rewards and adjustments by means of federal, state and municipal appointments.*

651 A powerful Aztec tribe had another source of support: tribute. The levies often consisted of foodstuffs and raw materials, both native and foreign to the Valley, and also included warriors' and priests' costumes, mantles, pottery and other articles of craftsmanship. Distributed throughout the community these goods enriched both communal enterprise and private convenience.* (See Plates 62, bottom right; 64.)

436 438 32 Manufacture and trade were beginning to play an important part in Aztec economy, although not to the extent of societies which have developed media of exchange, like

1:Vaillant A-5 (1928-1936)1941 NU7 Aztec NU7

361 Approaching along the causeway, the traveler of that time
174 passed first between expanses of open water. Then gradually tiny islands of green appeared, made of masses of mud dredged up from the bottom of the shallow lake and held
[241 in place by wickerwork. White-clad farmers dexterously
311 poled their tiny dugouts through the maze as they went
301] about the cultivation of their gardens. These irregular islets merged gradually into a more orderly grouping where the accumulation of soil had become stabilized as the roots, striking downward, had established anchorage in the lake bottom and created solid ground. This artificially made land reduced the open water of the lake to mere canals. (See Plate 37, bottom.)

[363 Save for the broad causeways, roads there were none; and
505] along the canals the traveler saw, in increasing numbers, boatloads of produce headed toward the city. Here and there among the green of the crops and trees he caught glimpses of thatched roofs and wattled walls, the huts of the farmers. Then adobe walls of more substantial dwellings began to encroach on the gardens, and the waters of the lake shrank to a canal following the roadway. The adobe walls gave way to the fronts of more pretentious houses plastered white or washed with powdered pumice, a dull, rich red. Now the visitor could realize how the city expanded through the successive creation of artificial islands which bore first a crop, then a modest hut and finally became integral with the masonry of the city proper.

363 The causeway had now changed from a simple means of
174 communication into a principal street with all its social complexity. Since canals took the place of roads, space for a saunter was so rare that the causeways were as much recrea-

8: Barlow E-4 (no date)1949 NU7 Aztec NU7

REMARKS ON TOWNS

632 An extensive zone to the south of Lake Chalco is rendered uninhabit-
[133 able by the lava flow, or "Pedregal," emitted by the Ajusco Mountains,
311] which form the valley rim. If any small settlements existed in this area, their tribute was probably reckoned as a part of that collected from some major town in the region of Xochimilco or Tepoztlan.

Auchpanco is identified by Acosta with Ayapango.

Colhuacacinco,[a] later San Cristobal, lay on the shore of Lake Xaltocan, east of Tzonpanco (2).

Olac is a barrio of Xochimilco.[b]

632 *Petlacalcatl* is the inscription under the glyph of a house made of
114 grass mats, in the *Mendocino*. It occupies the usual place of the cabecera in the manuscript, and like all the other towns was originally followed by the word "pu[ebl]o." A later hand has struck this out and has replaced it with the word "gobernador," perhaps under the influence of the double (and doubtful) annotation about "Acolhuacâ" and "Acolmecatl calpixqui" (tribute collector) which heads Acolhuacan Province.

That something is wrong is evident from the form of the original annotation. It is probably a place glyph, but the annotation takes the form of a personal glyph. I have chosen to read it as Petlacalco. The result is the same, for the Petlacalcatl, on the facing *Mendocino* page, was a head tribute collector, and the Petlacalco[c] was the "audiencia" building in the Tenochtitlan palace, which also housed a majordomo in charge of the granaries.[d]

632 *Tezcacoac*[e] is a barrio of Tepotzotlan, and consequently we should judge that it lay north of Tecoloapan (7).

[a] Located after the printing of the map, "dista del pueblo de Tiçayuca vna legua hazia el oueste" (*PNE*, 3: 44 and n. 2).

[b] Olaguibel, *Onomatologia del estado de México* (1894), p. 96.

[c] Sahagún, *Historia general de las cosas de Nueva España* [1938], I: 166.

[d] *Ibid.*, II: 311.

[e] Located after the printing of the map; it is mentioned in the Ayer "Fragment of a Village Book," and, as Texcacoa, in García Cubas' *Diccionario*.

14:Bandelier E-4 (no date)1880 NU7 Aztec NU7

might occasionally have raised, as well as upon the chase. But during this very period also, their chief divinity and subsequent principal idol, Huitzilopochtli, god of war, is reported to have uttered these prophetic words: "And I was sent on this journey, and "my office it is to carry arms, bows, arrows, and shields; war is my "chief duty, and the object of my coming. I have to look out in "all directions, and with my body, head and arms, have to do my "duty in many tribes, being on the borders and lying in wait for "many nations, to maintain and to gather them, although not gra-"ciously." Proceeding to state a number of objects, *subsequently* given to the Mexicans in tribute, he closes as follows: "All this I "shall own and hold, for I am sent after it, it being my office, and "I came for this purpose."[4] Imbued with a spirit of which this utterance is merely a legendary form, the Mexicans made their appearance among the agricultural tribes of the valley of Mexico as a crowd of famished, but desperate, intruders, were received as such, and, after a brave resistance, compelled to take refuge in a naturally isolated spot of dry land, surrounded by swamps and marshes.[5]

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In this defensive position, which the Mexicans subsequently converted into the strongest one ever occupied by Indians up to the 16th century,[6] they carefully nursed and developed their war-

[4] Tezozomoc (Cap. I, p. 6). Joseph de Acosta (Historia natural y moral de las Indias, 1608. Lib. VII, chap. IV, p. 459). M. Brasseur de Bourbourg ("Popol-vuh, "Intr., p. 187 and p. 149.") intimates Huitzilopochtli to be a myth common to all the aborigines of Central America in general.

[5] The spot to which the Mexicans fled, and which subsequently became the nucleus of Tenochtitlan, and of Tlatilulco, was *dry land*, in the midst of canes and reeds. (Tezozomoc, cap. I, p. 5, "porque el dia que llegaron a esta laguna Mexicana, en medio "de ella estava, y tenia un sitio de tierra, y en el una peña.") Fray Gèronimo de Mendieta (Historia eclesiastica Indiana," published by my most esteemed friend, Señor J. G. Icazbalceta, the learned Mexican scholar, in 1870. Lib. II, cap. XXXIV, p. 148. "Y luego se hicièron fuertes, en este sitio, tomando por muralla y cerca las aguas y "cenagosidades de la juncia y carrizales y matorrales de que estaba entonces poblada y "llena toda la laguna, que no hallaron el agua descubierta sino en sola una encrucijada "de agua limpia descompuesta de los matorrales y carrizales, formada a' manera de una "aspa de San Andrès. Y casi al medio de la encrucijada hallaron un peñasco"). Torquemada (Lib. II, cap. X, pp. 91 and 92. "En este lugar se ranchearon (como decimos "en el libro de los Poblaciones) haciendo unas pobres, y pequèñas choças, rodeados "de carrizo, y Espadañas, que ellos llaman Xacalli," etc., etc. (Acosta, Lib. VII, cap. VII, p. 459. " . . . . y dividiendòse una parte y otra, por toda aquella espesura "de espadañas, y carrizales, y juncia de la laguna, commençaron à buscar por las señas "de la revelacion el lugar tan deseado.") [311]

[6] There was, to my knowledge, but one similar position: that of Atitlan, in Guatemala. (See: Segunda Relacion por Pedro de Alvarado à Hernando Cortes, 28 July, 1524, pp. 469, 461 and 462, of Vol. I. of "Historiadores primitivos de Indias," by Don Enrique de Vedia, Madrid, 1852.) The tribe was regarded as very fierce, also. [17]

15:Bandelier E-4 (no date)1880 NU7 Aztec NU7

of the tribe, and it remained always public ground, reserved for the same purposes.[78] 651 423

Both of these kinds were often comprised in one, and it is even not improbable that the first one may have been but a variety of the general tribute-lands devoted to the benefit of the conquering confederates. Still, the evidence on this point is too indefinite to warrant such an assumption.

While the crops raised on the "tecpan-tlalli," as well as on the "tlatoca-tlalli," were consumed exclusively by the official houses and households of the tribe, the soil itself which produced these crops was neither claimed nor possessed by the chiefs themselves, or their descendants. It was simply, as far as its products were concerned, official soil.[79]

The establishing and maintaining of these areal subdivisions was very simple with the tribes of the mainland, since they all possessed ample territories for their wants and for the requirements of their organizations. *Their* soil formed a contiguous unit. It was not so, however, with the Mexicans proper. With all their industry in adding artificial sod to the patch on which 423 311

spending it in the house of the King.") Ixtlilxochitl (Ibid. cap. XXXV, p. 242. "In the best location of the territory there was set off a field, which held exactly *four* hundred measures in length and breadth. This was called Tlatocatlali or Tlatocamilli that is: land or plantation of the Lord, and also Itonal Yutlacal, or lands on which the inhabitants are compelled to work.") Oviedo (Lib. XXXIII, cap. II, p. 537). Veytia, (Lib. III, cap. VI, p. 135, confirms Ixtlilxochitl almost verbally, adding: "For the sowing and cultivation of these the calpixque, which was an officer of the community in each pueblo, daily designated those who had to attend to it, out of the plebeians and tributaries, and all the crops went to the Lord for the maintenance of his house ('casa' family)." Zurita does not use the term which we have adopted, because he is chiefly struck by the communal tenure, as exhibited in the "calpulalli." The fact of their being communal land, though set off for a special purpose, and *not owned* by the chiefs, is plain.

[78] Veytia (Lib. III, cap. VI, p. 136). It is superfluous to revert to the erroneous impression, that the chiefs might dispose of it.

[79] "Patrimonial Estates" are mentioned frequently, but the point is, where are they to be found. Neither the "tecpantlalli" nor the "tlatoca-tlalli," still less the "calpulalli," show any trace of individual ownership. "Heredad" (heirloom) is called indiscriminately "milli" and "cuemiti" (Molina Parte Ia. p. 57). The latter is also rendered as "tierra labrada, ó camellon" (Molina. Parte IIa. p. 26). It thus reminds us of the "chinamitl" or garden-bed (as the name "camellon" also implies), and reduces it to the proportion of an ordinary cultivated lot among the others contained within the area of the calpulli. It is also called "tlalli," but that is the general name for soil or ground. "Tierras ó heredades de particulares, juntas en alguna vega," is called "tlalmilli." This decomposes into "tlalli" soil, and "milli." But "vega" signifies a fertile tract or field, and thus we have again the conception of communal lands, divided into lots improved by particular families, as the idea of communal tenure necessarily implies.

15:Bandelier E-4 (no date)1880 NU7 Aztec NU7

they had originally settled, the solid surface was eventually much too small for their numbers, and they themselves put an efficient stop to further growth thereof by converting, as we have seen elsewhere, for the purpose of defence, their marshy surroundings into water-sheets, through the construction of extensive causeways.[80] While the remnants of the original "tecpantlalli" and of the "tlatocatlalli" still remained visible in the gardens, represented to us as purely ornamental, which dotted the pueblo of Mexico,[81] the substantial elements wherewith to fulfil a purpose for which they were no longer adequate had, in course of time, to be drawn from the mainland. But it was not feasible, from the nature of tribal condition, to extend thither by colonization. The soil was held there by other tribes, whom the Mexicans might well overpower and render tributary, but whom they could not incorporate, since the kinships composing these tribes could not be fused with their own. Outposts, however, were established on the shores, at the outlets of the dykes, at Tepeyacac on the north, at Iztapalapan, Mexicaltzinco, and at Huitzilopochco to the south, but these were only military positions, and beyond them the territory proper of the Mexicans never extended.[82] *Tribute*, therefore, had to furnish the means for sustaining their governmental requirements in the matter of food, and the *tribute lands* had to be distributed and divided, so as to correspond minutely to the details of their home organization. For this reason we see, after the overthrow of the Tecpanecas, lands assigned apparently to the head war-chiefs, to the military chiefs of the quarters, "from which to derive some revenue, for their maintenance and that of their children."[83] These

[80] "Art of War" (pp. 150 and 151). L. H. Morgan ("Ancient Society," Part II, cap. VII, pp. 190 and 191).

[81] Humboldt ("Essai politique sur la Nouvelle Espagne," vol. II, lib. III, cap. VIII, p. 50). Nearly all the old authors describe the public buildings as surrounded by pleasure-grounds, or ornamental gardens. It is very striking that, the pueblo having been founded in 1325, and nearly a century having been spent in adding sufficient artificial sod to the originally small solid expanse settled,—the Mexicans could have been ready so soon to establish purely decorative parks within an area, every inch of which was valuable to them for subsistence alone!

[82] The Mexican tribe proper clustered exclusively within the pueblo of Tenochtitlan. The settlements at Iztapalapan, Huitzilopochco and Mexicaltzinco were but military stations—outworks, guarding the issues of the causeways to the South. Tepeyacac (Guadalupe Hidalgo) was a similar position,—unimportant as to population,—in the North. Chapultepec was a sacred spot, not inhabited by any number of people, and only held by the Mexicans for burial purposes, and on account of the springs furnishing fresh water to their pueblo.

[83] Tezozomoc (Cap. XV, p. 34). See note 57.